

Dairy Road Extension project (TIP Project No. U-3334) prior to construction to serve as part of the detour route. The Booker Dairy Road Extension is expected to be complete by the end of 2011. The estimated construction time for Alternative 2 is 10 months or less.

C. Alternatives Eliminated from Further Study

“No-Build” Alternative was considered but was determined to be an undesirable alternative. No action would eventually necessitate closure of the bridge due to it being unsafe for public use.

Rehabilitation Alternative was investigated by the NCDOT Bridge Management Unit and was found to be “not feasible” due to the age of the bridge and the deterioration that has occurred throughout time. The existing bridge is classified as structurally deficient and functionally obsolete.

Temporary On-site Detour Alternative was considered but eliminated from further study due to design constraints at the east end of the bridge. A temporary detour structure on the north side would impact the Little Brown Jug tavern and a recently constructed (2006) office building located on the northeast corner of the US 70 Business/ Front Street intersection. The Little Brown Jug is well-known in Smithfield. It has operated as a tavern since the 1950s and has significance in the community as a social gathering place. Based on coordination efforts with local officials and input from the public at a Citizens Informational Workshop (held June 22, 2009) and through local media, many people in the community are opposed to the Little Brown Jug being relocated. A temporary detour structure on the south side would impact the American Legion Hall, a historic property determined eligible for the National Register of Historic Places.

D. Preferred Alternative

Alternative 2 is the preferred alternative due to the shorter construction time and lower cost (see Figure 4). This alternative will affect downtown traffic patterns for approximately 10 months as motorists will have to use one of the existing detour routes. This alternative is also safer to build since traffic will not be in the work zone. In addition, since the construction time is considerably less than that for Alternative 1, the contractor will be spending less time working over the river, which can fluctuate often.

Alternative 2 replaces the existing bridge with a new bridge 77 feet wide (face of outside railing to face of outside railing) by approximately 350 feet long with a clear roadway width of 59 feet (see Figure 2). A 10-foot wide multi-use path on the south side and another six-foot wide path on the north side will provide accommodations for pedestrians and bicyclists. The grade of the proposed structure will be raised approximately one foot above the grade of the existing bridge. A design exception will be required for one of the horizontal curves. The posted speed limit on the bridge will be 25 mph. Provisions for lighting on the bridge and beneath for the greenway will be included in the design of the proposed bridge.